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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/960,482	09/24/2001	Brian M. Foley	033337/0103	5798
22428	7590	11/12/2003	EXAMINER	
FOLEY AND LARDNER SUITE 500 3000 K STREET NW WASHINGTON, DC 20007			LAVARIAS, ARNEL C	
			ART UNIT	PAPER NUMBER
			2872	

DATE MAILED: 11/12/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/960,482

Applicant(s)

FOLEY, BRIAN M.

Examiner

Arnel C. Lavarias

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 March 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) 22-31 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 September 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4. 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Applicant's election of Group I, Claims 1-11, in Paper No. 8, dated 3/25/03, is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).
2. Claims 22-31 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 8, dated 3/25/03.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
 4. Claims 1-2, 4, 7-13, 15, 18-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over McGrath et al. (U.S. Patent Application Publication US2001/0031124 A1) in view of Kobayashi et al. (JP 61-223809).
- McGrath et al. discloses an equipment rack and fiber handling track (See for example Figures 1-5, 7), the equipment rack comprising one or more subracks (See 60, 64 in Figure 7) mounted in a first direction in the equipment rack, and one or more patch

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panels (See 64 in Figure 7) mounted in the subrack and having one or more ports coupled to a respective optical fiber (See 70 in Figure 7); the fiber handling track comprising one or more radius control bosses (See for example upper fingers 30 in Figure 4 on which cover 52 is resting on) located along a first side of the fiber handling track, each of the radius control bosses adapted to receive in a first direction an optical fiber coupled to at least one of one or more circuit cards and divert the received optical fiber from the first direction to a second direction substantially perpendicular to the first direction (See Figure 7). It is noted that the curvature of the radius control bosses limits the curvature of the fiber to a minimum bend radius. Although McGrath et al. does not specifically disclose one or more circuit cards to which the optical fibers are coupled to (For example in Figure 7, the optical fibers are coupled via connectors to a patch panel 64), it is well known in the art to have the patch panel 64 include circuit card or be replaced by circuit cards. McGrath et al. further discloses fiber retention tabs located along a second side of the fiber handling track opposite the first side, the fiber retention tabs retaining the optical fibers diverted by the radius control bosses within the fiber handling track (See for example lower fingers 30, tabs 38 in Figure 4); a plurality of cover bosses (See 34 in Figure 4); and a plate coupled to the cover bosses, the plate retaining the optical fibers within the fiber handling track (See 52 in Figure 4). McGrath et al. lacks a bell flare located at one or both ends of the fiber handling track, the bell flare adapted to receive the optical fibers diverted by the one or more radius control bosses and divert the received optical fibers from the second direction to a third direction substantially perpendicular to the second direction. However, Kobayashi et al. teaches a fiber handling apparatus (See

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for example Figures 1A, 1B, 1C) that includes a fiber track (See lower portions of Figures 1A, 1B), wherein a bell flare is located at one or both ends of the fiber handling track (See 7a, 7b in Figure 1B), the bell flare(s) adapted to receive the optical fibers diverted by the one or more radius control bosses and divert the received optical fibers from the second direction to a third direction, the bell flare including at least two flared portions (See 71, 72 in Figure 4). The Examiner notes that although Kobayashi et al. shows the fiber (See 43 in Figure 1B) as being in the same direction exiting the bell flare as in the fiber track, the fiber may exit the bell flare in any direction that is allowed by the bell flare, including a third direction that is perpendicular to the direction of the fiber in the fiber track. The Examiner further notes that the curvature of the bell flare limits the curvature of the fiber to a minimum bend radius. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have a bell flare located at one or both end of the fiber handling track, the bell flare adapted to receive the optical fibers diverted by the one or more radius control bosses and divert the received optical fibers from the second direction to a third direction substantially perpendicular to the second direction, as taught by Kobayashi et al., in the fiber handling track of the equipment rack of McGrath et al., for the purpose of reducing excessive bending, such as by crimping, of the fiber at the ends of the fiber track, thus reducing signal losses in the fiber due to bends in the fiber.

5. Claims 3, 5, 14, 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over McGrath et al. in view of Kobayashi et al.

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McGrath et al. in view of Kobayashi et al. discloses the invention as set forth above in Section 4 of the instant Office Action, except for either the one or more radius control bosses restricting the bending of the received optical fiber to at least a radius of 25 mm. It is extremely well known in the art of optical communications via optical fiber to assure that the optical fiber has no sharp bends or kinks along the length of the fiber. It is further well known in the art that as the bend radius of an optical fiber becomes smaller, the signal attenuation in the fiber increases due to bending attenuation in the fiber. Thus, choosing to limit the bend radius of the optical fiber along the fiber length to be greater than a minimum bend radius, such as 25 mm, would have been obvious to one skilled in the art. One would have been motivated to do this to reduce/prevent bending attenuation losses in the optical fiber.

6. Claims 6 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over McGrath et al. in view of Kobayashi et al. as applied to Claims 1 and 12 above, and further in view of Vidacovich et al. (U.S. Patent No. 5402515).

McGrath et al. in view of Kobayashi et al. discloses the invention as set forth above in Claims 1 and 12, except for the fiber handling track further comprising a plurality of radius control tabs, each pair of radius control tabs being spaced away from and located between adjacent pairs of radius control bosses, the radius control tabs further restricting the bending of the optical fibers diverted by the radius control bosses. However, Vidacovich et al. teaches a fiber distribution frame system (See for example Figures 1, 7), wherein the fiber handling track (See for example right hand side of Figure 1) includes a plurality of radius control tabs (See for example 104 in Figure 1), each pair of radius

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control tabs being spaced away from and located between adjacent pairs of radius control bosses (See for example 102 in Figure 1), the radius control tabs further restricting the bending of the optical fibers diverted by the radius control bosses (See for example Figure 7). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have the fiber handling track further comprise a plurality of radius control tabs, each pair of radius control tabs being spaced away from and located between adjacent pairs of radius control bosses, the radius control tabs further restricting the bending of the optical fibers diverted by the radius control bosses, as taught by Vidacovich et al., in the fiber handling track of McGrath et al. in view of Kobayashi et al., for the purpose of preventing the optical fibers from slipping out of the fiber handling track.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Arnel C. Lavarias whose telephone number is 703-305-4007. The examiner can normally be reached on M-F 8:30 AM - 5 PM EST.

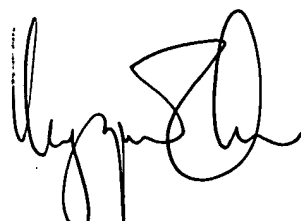
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew Dunn can be reached on 703-305-0024. The fax phone number for the organization where this application or proceeding is assigned is 703-308-7722.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1782.



Arnel C. Lavarias
11/5/03



Thong Nguyen
Primary Examiner